

ABSTRACT

A waveguide to microstrip T-junction includes a microstrip transmission line structure having a ground plane separated from a strip conductor by a dielectric layer, the ground plane defining an aperture; a waveguide channel having a conductive periphery being electrically coupled to the ground plane to provide a waveguide short circuit wall located at the end of the waveguide channel; at least one conducting ridge inside the waveguide channel; and an end of the ridge being electrically coupled with the ground plane.